



COURSE SYLLABUS

- a. **Course Title and Number:**
FMDT002 Thrust Manipulation Course
- b. **Course Description:**
This lecture and laboratory course is designed to teach the theory, rationale, and evidence supporting spinal and extremity joint manipulation. The course is designed to enhance psychomotor skill in utilizing mobilization and manipulation for the management of musculoskeletal disorders. The main focus of the program will be on determining the indications and contraindications of applying the techniques to assure both safety and treatment effectiveness. The areas emphasized will be based on evidence from recent clinical trials using manipulation to treat the spine.
- c. **Program offering the course:** McKenzie Institute USA Fellowship Program in OMPT
- d. **Credit hours:** Not applicable
- e. **Course Instructors:** McKenzie Institute USA OMPT Fellowship Faculty
- f. **Clock hours:** 55 hours including pre-course readings and post-course assignments
- g. **Course prerequisites:** None
- h. **Course Objectives:** The student will be able to:
 - 1) Describe the current evidence supporting the use of manual physical therapy interventions.
 - 2) Describe the Guide definitions of terms associated with manual therapy interventions.
 - 3) Describe and demonstrate safety procedures associated with adverse outcomes resulting from manual physical therapy application.
 - 4) Analyze the signs and symptoms which determine the appropriateness of manual therapy intervention.
 - 5) Demonstrate competence in performing and interpreting the examination techniques (including but not limited to joint accessory motion examination) which determine that manual therapy interventions are indicated.
 - 6) Demonstrate grade 1-5 thrust and non-thrust manipulation on simulated patients.
 - 7) Demonstrate competence in both the technical application and interpretation of response to physical therapy interventions utilized in the management of musculoskeletal disorders.
 - 8) Make appropriate adjustments in application of manual therapy (e.g., grade, depth, frequency, duration) and patient positioning in response to simulated patient changes during therapy.
 - 9) Discuss the indications for various types of manipulative treatments for the spine and extremity joints, not limited to manipulation.
 - 10) Interpret responses to treatment and make appropriate recommendations for modification.
- i. **Outline of content:**
Attain knowledge regarding the indications and contraindications for thrust technique, vertebrobasilar tests and spinal stability tests.
 - Development of cognitive and psychomotor skill in thrust technique
 - Analysis and critique of literature related to thrust technique and the sensitivity and specificity of tests for spinal stability and vertebrobasilar sufficiency.
- j. **Description of teaching methods and learning experiences:**
Faculty will utilize technology such as video as well as direct laboratory instruction in fostering cognitive and psychomotor skill attainment in thrust technique. Access to videos online and a manual of selected techniques will be provided to the students to enhance self-assessment and skill development. Immediate feedback regarding performance will be provided to the students throughout the thrust unit. Feedback will also be provided via discussion boards posts.

k. Evaluation of student learning:

Successful completion of the course requires the following:

Assignment	Resource	Due date	Measure
Thrust manipulation online exam	Course manual, live course, assigned readings	30 days post-course via Schoology	80% required
2 Discussion board posts (2 spine)	Course manual, live course, assigned readings	30 days post-course via Schoology	80% required

Evaluation of student learning:

- 1) Written Exam on live course, course manual, course readings (1)
- 2) Discussion Posts (2: 1 spine, 1 extremity)

Written Exam	100 points
Discussion post spine	20 points
Discussion post extremity	20 points
Total	140 points

Grading Guidelines are as follows:

94-100%	A	75-79%	C+
90-93%	A-	70-74%	C-
87-89%	B+	60-69%	D
84-86%	B	below 60%	F
80-83%	B		

- A grade of B is required for successful pass of the course
- Active attendance is required to all class sessions.
- Legal absences must be reported to the course instructors or the McKenzie Institute USA
- Students must be prepared for all class sessions.
(i.e., When required – loose, comfortable clothing for lab and readings)
- Final grade will include consideration of class performance, professionalism, timely attendance, punctuality, and class preparation.
- Checkouts on the manual procedures will take place during the 1:1 mentoring sessions. If a student is not successful at the minimum mastery level on the practical checkout (<80%), it must be taken over following a remedial period not to exceed 14 days.

I. Required Texts/Media:

Textbook references –

- **Required:**
 - Cook CE. Orthopedic Manual Therapy An Evidence Based Approach, Upper Saddle River, NJ: Pearson Prentice Hall; 2007.
- **Recommended:**
 - Levangie PK, Norkin CC. Joint Structure & Function, 4th ed., Philadelphia: F.A. Davis Co.; 2005.
 - Magee DJ. Orthopaedic Physical Assessment, 5th ed., St. Louis: Saunders;2008.

Required Readings:

1. Childs J, Fritz JM, Piva SR, et al. Clinical decision making in the identification of patients likely to benefit from spinal manipulation: a traditional versus an evidence-approach. Orthop Sports Phys Ther. 2003;33:259-272.

2. Flynn T, Friz J, Whitman J, et al. A clinical prediction rule for classifying patients with low back pain who demonstrate short-term improvement with spinal manipulation. *Spine* 2002;27:2835-2843.
 3. Flynn TW, Fritz JM, Wainner RS, et al. The audible pop is not necessary for successful spinal high- velocity thrust manipulation in individuals with low back pain. *Arch Phys Med & Rehab* 2003;84:1057-106.
- Required literature references can be accessed through the Tufts University Library Website. <https://hirshlibrary.tufts.edu>
Use Quick Links: Resources by Subject
 - Additional readings and references are continually updated and will be posted in Schoology provided to FiTs prior to the course.
 - Access to videos online and a manual of selected techniques will also be provided to the students to enhance self-assessment and skill development.

m. Disability Statement:

Any student who has a documented disability should meet with the course instructor during office hours to discuss ways to arrange accommodations in order to complete the requirements and expectations of this course.

THRUST MANIPULATION COURSE SCHEDULE

DAYS	TIMES	TOPICS
Day One: Registration 7:30am – 8:00am to 5:30pm	8:00-9:00am	MDT classification and indications/contraindications for manual cervical spine procedures
	9:00-9:30	MDT progression of forces (cervical spine)
	9:30-10:15	Analysis of literature regarding cervical spine manipulation
	10:15-10:30	<i>Break</i>
	10:30-11:30	Assessment for cervical spine stability and vertebrobasilar insufficiency
	11:30-12:00	Cervical spine pre-manipulative hold
	12:00-1:00pm	<i>Lunch on your own</i>
	1:00-2:30	Cervical spine manual procedures sitting
	2:30-2:45	<i>Break</i>
	2:45-4:15	Cervical spine manual procedures supine
4:15-4:45	Cervical spine technique round robin	
4:45-5:30	Analysis of literature regarding thoracic spine manipulation	
		Day 1 Q&A
Day Two: 7:45am Sign-in 8:00am to 6:00pm	8:00-9:00am	MDT classification and indications/contraindications for thoracic spine manual procedures; MDT progression of forces (thoracic)
	9:00-10:00	Thoracic spine manual procedures
	10:00-10:15	<i>Break</i>
	10:15-10:45	Thoracic spine round robin
	10:45-11:15	Analysis of literature regarding lumbar spine manipulation
	11:15-12:15pm	MDT classification and indications/contraindications for lumbar spine manipulation; MDT progression of forces (lumbar)
	12:15-1:00	<i>Lunch on your own</i>
	1:00-2:00	Lumbar spine manual procedures
	2:00-2:30	Lumbar spine round robin
	2:30-3:00	Day 2 Q&A
	3:00-3:30	<i>Break</i>
	3:30-4:30	Arthrokinematics and upper and mid-cervical mobility testing
	4:30-5:30	Arthrokinematics Thoracic spine
5:30-6:00	Upper cervical mobilization/manipulation	
Day Three: 7:45am Sign-in 8:00am to 5:00pm	8:00-8:30	Safety Checkout
	8:30-9:00	Mid cervical mobilization/manipulation
	9:00-9:30	Thoracic/rib mobilization/manipulation
	9:30-9:45	<i>Break</i>
	9:45-10:45	Lumbar arthrokinematics/mobilization/manipulation
	10:45-11:30	Shoulder arthrokinematics/mobilization/manipulation
	11:30-12:00	Elbow arthrokinematics/mobilization/manipulation
	12:00-1:00	<i>Lunch on your own</i>
	1:00-1:30	Elbow arthrokinematics/mobilization/manipulation
	1:30-2:15	Wrist/hand arthrokinematics/mobilization/manipulation
	2:15-2:30	<i>Break</i>
	2:30-3:00	Hip arthrokinematics/mobilization/manipulation
	3:00-3:30	Knee arthrokinematics/mobilization/manipulation
3:30-4:30	Ankle/foot arthrokinematics/mobilization/manipulation	
4:30-5:00	Round robin/Course wrap up	